

**CALIFORNIA WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
MONITORING AND REPORTING PROGRAM NO. 97-15
FOR THE
COUNTY OF SAN DIEGO
BONSALL SANITARY LANDFILL
SAN DIEGO COUNTY**

A. MONITORING PROVISIONS

1. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer. Specific methods of analysis must be identified. If methods other than U. S. EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.
2. If the discharger monitors any pollutants more frequently than required by this Order, using the most recent version of Standard U. S. EPA Methods, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
3. The discharger shall report all instances of noncompliance not reported under Reporting Requirement D.5 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirement D.5.
4. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard U. S. EPA Methods, and in accordance with an approved sampling and analysis plan.
5. All monitoring instruments and equipment which are used by the discharger to fulfill the prescribed monitoring program shall be properly calibrated and maintained as necessary to ensure their continued accuracy.
6. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required by this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer.

7. Records of monitoring information shall include:
 - a. The date, identity of sample, Monitoring Point from which it was taken, and time of sampling or measurement;
 - b. The individual(s) who performed the sampling or measurements;
 - c. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;
 - d. The analytical techniques or method used, including method of preserving the sample and the identity and volumes of reagents used;
 - e. Calculation of results; and
 - f. Results of analyses, and the MDL for each parameter.
 - g. Laboratory quality assurance results (e.g. percent recovery, response factor)
8. The monitoring reports shall be signed by an authorized person as required by Reporting Requirement D.9.

B. SITE MAINTENANCE

1. The discharger shall perform quarterly inspections of the landfill site and report the results **semi-annually**. The report shall contain information on the sites condition and a discussion of any significant findings with regard to:
 - a) General site condition;
 - b) Surface cover and slope;
 - c) Drainage facilities;
 - d) Groundwater and vadose zone monitoring networks;
 - e) Methane gas control system;
 - f) Observation of seepage from the site; and
 - g) Maintenance activities at the site.

C. GROUND WATER QUALITY MONITORING

The following shall constitute the ground water monitoring program for the Bonsall Sanitary Landfill:

1. **Ground Water Flow Rate/Direction** ✓

For each monitored ground water body, the discharger shall measure the water level in each well and determine ground water flow rate and direction at least semi-annually, including the times of expected highest and lowest elevations of the water level for the respective ground water body. Ground water elevations for all background and downgradient wells for a given ground water body shall be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.

2. **Well Purging** ✓

- a. Prior to sampling monitoring wells, the presence of a floating immiscible layer in all wells shall be determined at the beginning of each sampling event. This shall be done prior to any other activity which may disturb the surface of the water in a well, e.g. water level measurements. If an immiscible layer is found, the Regional Board shall be notified within 24 hours.
- b. Prior to purging each monitoring well, the static water level shall be measured.
- c. Field logs used during well purging shall be included in the monitoring reports. The information contained in these logs shall include: the method of monitoring field parameters, calibration of the field equipment, method of purging (if a pump is used, include pump placement and pumping rate), date each well was purged, well recovery time, method of disposal of the purged water, an estimate of volume of water purged from each well, the results of all field analyses, well number, depth to ground water, method of measuring the water level and field personnel signatures.

3. **Ground Water Sampling and Analysis**

- a. The ground water monitoring network shall consist of monitoring wells BOGW-1, BOGW-3, BOGW-5, BOGW-6 and ITBO-1 as shown on Attachment No. 1 to Monitoring and Reporting Program No. 97-15.
- b. The discharger shall sample ground water monitoring wells BOGW-1, BOGW-3, BOGW-5, BOGW-6 and ITBO-1 for the following constituents semiannually:

Constituent	Units	Sampling Frequency	Reporting Frequency
Chemical Oxygen Demand	mg/l	Semi-annually	Semi-annually
Chloride	mg/l	Semi-annually	Semi-annually
Nitrate	mg/l	Semi-annually	Semi-annually
pH		Semi-annually	Semi-annually
Sulfate	mg/l	Semi-annually	Semi-annually
Total Dissolved Solids	mg/l	Semi-annually	Semi-annually
Volatile Organics	µg/l	Semi-annually	Semi-annually
Antimony	mg/l	Semi-annually	Semi-annually
Arsenic	mg/l	Semi-annually	Semi-annually
Barium	mg/l	Semi-annually	Semi-annually
Cadmium	mg/l	Semi-annually	Semi-annually
Calcium	mg/l	Semi-annually	Semi-annually
Chromium	mg/l	Semi-annually	Semi-annually
Copper	mg/l	Semi-annually	Semi-annually
Iron	mg/l	Semi-annually	Semi-annually
Lead	mg/l	Semi-annually	Semi-annually
Magnesium	mg/l	Semi-annually	Semi-annually
Manganese	mg/l	Semi-annually	Semi-annually
Mercury	mg/l	Semi-annually	Semi-annually
Molybdenum	mg/l	Semi-annually	Semi-annually
Nickel	mg/l	Semi-annually	Semi-annually
Potassium	mg/l	Semi-annually	Semi-annually
Selenium	mg/l	Semi-annually	Semi-annually
Silver	mg/l	Semi-annually	Semi-annually
Sodium	mg/l	Semi-annually	Semi-annually
Thallium	mg/l	Semi-annually	Semi-annually
Vanadium	mg/l	Semi-annually	Semi-annually
Zinc	mg/l	Semi-annually	Semi-annually

Note: mg/l = milligrams/liter and µg/l = micrograms/liter

D. REPORTS TO BE FILED WITH THE BOARD

All reports shall be submitted no later than one month following the end of their respective Reporting Period. The reports shall be comprised of at least the following in addition to the specific contents listed for each respective report type:

1. Transmittal Letter

A letter summarizing the essential points shall be submitted with each report. The transmittal letter shall include:

- a. A discussion of any requirement violations found since the last such report was submitted and shall describe actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter; and
- b. A statement certifying that, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct. This statement shall be signed by an individual that meets the requirements contained in Reporting Requirement D.9.

2. Semi-Annual Report

The discharger shall submit a semiannual report to the Regional Board covering the previous six months. The Winter/Spring Reporting Period ends March 31 and the Summer/Fall Reporting Period ends on September 30. The semi-annual report shall contain, but not be limited to the following:

- a. Site maintenance - A summary of quarterly inspections and a discussion of any significant findings, as described in B. Site Maintenance of this Monitoring and Reporting Program.
- b. Flowrate/direction - For each monitored groundwater body, a description and graphical presentation (e.g., arrow on a map) of the velocity and direction of ground water flow under/around the landfill, based upon water level elevations taken during the collection of the water quality data submitted as part of this Monitoring and Reporting Program.
- c. Well Information - For each monitoring well, a description of the method and time of water level measurement, and a description of the method of purging used both before sampling to remove stagnant water in the well, and after sampling to remove the water that was in the well bore while the sample was being taken.

- d. Sampling Information - For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump - or other device - used and its vertical placement for sampling, and a detailed description of the information contained in A.7 of this Monitoring and Reporting Program.
- e. Map - A map (or copy of an aerial photograph) showing the locations of observation stations, Monitoring Points, and Background Monitoring Points.

3. **Annual Summary Report**

The discharger shall submit an annual report to the Regional Board covering the previous monitoring year. The annual Reporting Period ends March 31. This report may be combined with the Winter/Spring semiannual report. The annual report shall include, but not be limited to the following:

- a. Graphical Presentation of Analytical Data - For each monitoring point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five calendar years. Each graph shall plot the concentration of the constituent over time for a given monitoring point, at a scale appropriate to show trends or variations in water quality.
- b. Compliance Record Discussion - A comprehensive discussion of the compliance record, result of any corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.
- c. Summary of Changes - A written summary of the monitoring results and monitoring system(s), indicating any changes made or observed since the previous annual report.
- d. Map - A topographic map at appropriate scale, showing the direction of ground water flow at the landfill site.

E. **REPORTING**

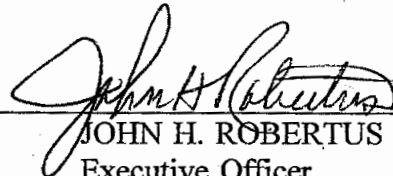
Monitoring reports shall be submitted to the Executive Officer in accordance with the following schedule:

<u>Report Frequency</u>	<u>Report Period</u>	<u>Report Due</u>
Semiannually	October - March	30 Days after the reporting period.
Annually	April - March	

Monitoring reports shall be submitted to:

California Regional Water Quality Control Board
San Diego Region,
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331

Ordered by

A handwritten signature in dark ink, appearing to read "John H. Robertus", is written over a horizontal line.

JOHN H. ROBERTUS

Executive Officer

March 12, 1997